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To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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BOTTLE PAPERS.

The United States Hydrographic Office chart for July, carries on the reverse side an elaborate chart showing "Recent accessions to our knowledge of ocean currents obtained through floating bottles." This is accompanied by a list which includes those of the bottle papers supplied by the Hydrographic Office, cast overboard and later recovered, from November 17, 1891, to June 1st, 1897. An excerpt from the notes annexed to the list says:

"Of the bottles recovered, 81 were cast overboard within the limits of the North Atlantic, nine in the South Atlantic, eight in the North Pacific, eight in the South Pacific, and three in the Indian Ocean. Three bottles crossed the equator, two in the Atlantic, No. 38 and No. 45, respectively, both going from the south to north, and one, No. 5, of the Pacific and Indian Ocean list, in the China sea, going from north to south. Two buoys are included in the list, one, No. 77, a life buoy, which was thrown overboard from the steamship Palatia, September 24, 1896, and was picked up on the west coast of Ireland island, one of the Bermudas, January 25, 1897; the second, No. 1 of the Pacific and Indian Ocean list, a buoy which was swept overboard from the Japanese cruiser Baujo April 22, 1894, and was picked up by the steamship Kilanea Hou, in the strait between the islands of Hawaii and Maui. The longest drift was that of bottle No. 2, thrown overboard from the ship Allerton to the south of the Falkland Islands, and found, after an interval of slightly less than three years, near Eyre Patch, on the shores of the great Australian Bight, the distance between these two points, measures (approximately) along the parallel being 8,500 miles. Of the more extended drifts, the one having the highest daily average,' 17.6 miles, was confined as usual, wholly to the equatorial current, being that of bottle No. 38, thrown overboard from the ship Euphelia, to the south of the equator, and picked up on the shores of Martinique."

DAMAGED CARGO.

Spillers & Bakers, Limited, sued Messrs. Bennett & Co. for £61 9s 7d.for damage to a cargo of maize and oats brought from Baltimore to Avonmouth by the Thrunsco (s.). The vessel left Baltimore on the 19th January and arrived at Avonmouth on the 7th February. From the 20th to the 27th January bad weather was experienced, and the hatches had to be closed. On discharging it was found that a considerable quantity of maize and a small quantity of oats had been damaged. Large quantities of maize were roasted, and that was claimed for on the ground that the ship was not seaworthy in that sense, or else the cargo was negligently stowed. The cargo was stowed in the foreholds, and the damaged grain was found in Nos.2 and 3 holds, which were bounded by the bulkheads of the stokehold and engine-room, and were affected by heat from the engine and boiler. It was stated in defence that the ship was a new one, and that there was ample protection for the cargo. Defendants paid £12 into Court, with a denial of liability in respect of the damage generally, it was pleaded that it was due to the perils of the sea, for which defendants were not liable. His Honor (Judge Austin), in giving judgment, said that the damage was caused by what was called roastingor baking, as distinct from ordinary heating. There was no default in the stowage, and that which happened was the result of the heat generated and kept below by the closing of the ventilators for a period which no reasonable man could contemplate, even in crossing the Atlantic. He gave judgment for defendants with costs.

AIDS TO NAVIGATION.

Black River Shoal Gas Buoy—On July 2, 1897, a black gas buoy, showing a fixed white light, was established on the easterly edge of the Middle Ground of the mouth of the Black River and Port Huron, northerly end of the St. Clair River, in place of the former Black River shoal buoy, No. 1.

Mud Lake Turning Gas Buoy—On July 4, 1897, a black and white perpendicularly striped gas buoy, showing a fixed white light, was established in Mud Lake, St. Mary's River, at the intersection of the range lines marked by the Pilot Island and Winter Point range lights, in place of the former Mud Lake turning buoy.

HayLake Channel Entrance Gas Buoy—On July 4, 1897, a black gas buoy, showing a fixed white light, was established on the westerly side of the channel in the northerly end of Little Mud Lake, St. Mary's River, to mark the beginning of the turn into Hay Lake Channel, in place of the former entrance buoy, No. 1.

Middle Ground Gas Buoy—On July 5, 1897, a red gas buoy, showing a fixed white light, was established on the northerly side of the channel and the southerly side of the middle ground, in the head of the St. Mary's River, about one and one-third miles west-northwesterly from Round Island, in place of the former Middle Ground buoy, No. 68.

BRITISH SHIPPING.

For the progress of the British merchant shipping there seems to be no bounds, says the Glasgow Herald. The statistics on the subject issued by the Board of Trade show that 1896 was a record year. They deal with the total entries and clearances at ports in the United Kingdom during 1894, 1895 and 1896. For the purpose, however, of indicating the enormous development that is taking place in our shipping trade, it may be well to go further back. At the middle of the present century—in 1850—the tonnage of vessels cleared and entered was under 40 millions of tons. By 1890 this tonnage had quadrupled having grown to more than 164 millions of tons. After an increase so vast, no surprise would have been felt if the growth had somewhat slackened. There were, indeed, signs of this in 1895, the volume of entrances and clearances in that year being slightly under the figures for 1894. But another rebound took place in 1896, when the tonnage advanced by more than eight millions and a half and reached the great total of close on 191 millions.

RIVER AND HARBOR WORK.

Capt. George A. Zinn, Corps of Engineers, U. S. Army, has rendered his annual report of the improvement of rivers and harbors on the western shore of Lake Michigan. At Menominee Harbor, up to June 30, the date of the report, the channel had the required dimensions of 200 feet wide and 17 feet deep. Soundings taken in February show that the upper end has been reduced in depth one-half to one foot in places, but the shoals are not of sufficient extent to seriously impede navigation. During the year parts of the north and south piers were rebuilt and openings between the pile and crib piers were closed with plank shutters to prevent the passage of sand into the channel. In Menominee River the turning basin was completed and about 30 per cent. of the dredging required to extend the channel to Wells street was completed.

At Green Bay Harbor the revetments at Grassy Island are in fair condition, the channel being 150 feet wide. Dredging is now going on to increase the width to 200 feet.

In the Fox River below Depere dredging is now progressing for increasing the depth to fifteen feetand as wide as available funds will permit. At Sturgeon Bay and Lake Michigan ship canal work now in progress will extend th erevetment on the south side 1,300 feet during the present working season, making its total length 6,200 feet. On June 30 the governing depth in the channel yas about fifteen feet. Capt. Zinn says that since the purchase of the canal by the government in 1893 the tonnage passing through this improved waterway has increased over 50 per cent., notwithstanding the commercial depression of the past three years. The approximate value of vessels and cargoes passing through last year was $4,454,052.

At Milwaukee Harbor of Refuge contracts were made for the extension of the breakwater 1,600 feet. This work was in progress at the close of the fiscal year. Repairs were made to the shore arm of the breakwater and the gap between the inner end of the breakwater and the shore was closed. There still remains to be built on this project 900 feet of breakwater and 1,900 feet of superstructure.

At Milwaukee Harbor, Capt. Zinn says that soundings taken in April showed a channel midway between the piers of at least 130 feet and nineteen feet deep. During the year 14,271 cubic yards of material were dredged from the harbor, resulting in the restoration of the nineteen-foot depth. The report says that about 600 feet of the superstructure of the south pier is in a very dilapidated condition and should be rebuilt at once. The cross-ties are entirely rotted out and there is constant danger of that portion of the pier caving into the channel. The report also says a new pile projection should be built at once along the channel face of the south pier about 1,100 feet long. These repairs are most urgently needed and have already been too long deferred. Repairs to the north pier are already needed. othing was done at South Milwaukee Harbor during the year.

NEWS AROUND THE LAKES.

DETROIT.

Special Correspondence to The Marine Record.

Buffalo underwriters who had the insurance on the Susquehanna and City of Alpena claim that they escape any great loss. The Alpena's policy does not cover stranding, and a little general average involved in getting the Susquehanna to a place of safety will be all her policy calls for.

The wrecker Snook, in charge of Captain Baker, left here on Wednesday, to recover the machinery of the steamer Allegheny, which was wrecked on Big Summer Island, and to try to release the schooner Transfer, which stranded at the same time. There is no doubt but that Capt. Baker will accomplish all that he goes after.

The fine of $50 imposed upon Capt. Alex. Ruelle, for failure to promptly turn in the expired license of the tug C. A. Lorman, has been cut down to $5 by Assistant Secretary of the Treasury Spaulding. Capt. Ruelle says it was an oversight of Capt. Reuben Burr, who had charge of the tug, and the secretary evidently accepted the explanation.

The passenger steamer City of Alpena, which ran on a reef in Thunder Bay on Wednesday evening, was released by the tugs Ralph and Root, after lightering one hundred tons of coal, fifty tons of cargo, and blowing the water off one boiler. She is believed to be uninjured and is not leaking. Some of her passengers were badly frightened at the time of stranding, but were reassured by Capt. Lightbody and retired to their staterooms. She ran on a big boulder, which raised her two feet, and then she slid off on a reef and remained there until assistanc was sent to her.

Divers are making good progress on the Ira Owen. Her forward water compartment has been pumped out, and the pumps keep her free without trouble. Her captain states that her cargo is not badly damaged, but this cannot be ascertained fully until she is unloaded. The captain refuses to make any further statement in regard to the collision. The Owen's cabin pilot house, steering gear, steam hoist, etc., are a complete wreck. There is a hole about fifteen feet square in her bow above the main deck. The stem and all plates forward are badly crushed in. The damages will be heavy. She will not leave Alpena until permission is obtained from underwriters.

The steamer City of Alpena of the Detroit & Cleveland line, with 300 passengers on board, ran on a reef in Thunder Bay Tuesday evening in a dense fog. The reef lies half a mile from shore, and a mile from the river opposite Avery's mill. The steamer was going at a somewhat checked speed when she struck. A heavy fog overhung the water and prevented persons on shore from seeing the disaster. Signals from the steamer's whistle brought out tugs to the rescue, and such passengers as wished to land at Alpena were immediately taken ashore. The tugs Ralph, Arthur D., and the wrecker Root at once got out lines to the stranded steamer and attempted to release her. The attempt was not successful, and a lighter was taken out to remove the cargo. The steamer was leaking, but she has a double bottom, and no watetr has got into the hold. The reef lies in a sheltered place, so that no danger is apprehended from a storm, and she will come off all right after being lightered. This is one of the unusual experiences which the D. & C. line meets with as its boats are always carefully navigated in fog, mist or falling snow.

CHICAGO.

Special Correspondence to the Marine Record.

Capt. John Prindiville chartered the steamer C. A. Street and barges Lozen and Godfrey for corn to Kingston at 2½ cents.

At the Chicago Shipbuilding Co.'s shipyard the schooner Elgin was in dry dock for some bottom calking, the tug Ames for some calking and ironing and a new wheel.

Four companies of the United States 19th Infantry from Fort Brady, which are to take part in the ceremonies attending the unveiling of Gen. Logan's monument on Thursday, arrived here Monday afternoon on the steamer Manitou.

H. W. Cook & Co. chartered the steamers Simon J. Murphey and Wm. B. Morley for corn to Prescott at 2½ cents, the steamer Fred Pabst for oats to Buffalo at 1⅞ cents, steamers Sanilac and Westover and barge Bliss for lumber, Manistique to Chicago at $1.00 per M feet.

J. J. Rardon & Co. chartered the steamers Shenandoah and Phenix for oats to Buffalo at 1⅞ cents, the barges Algeria and Granada and steamer Progress for corn to Bugalo at 1¼ cents, the steamers Aragon and Inter-Ocean and barge Winslow for corn to Kingston at 2½ cents.

At the shipyard here the steamer City of Grand Rapids was in dock for a new wheel key and some calking, the steamer Sachem for a new stern bearing, the tug Leslie for a new wheel, the steamer Fayette for some bottom calking, the steamer I. Watson Stephenson for a new key and repairs to her wheel.

The steamer Yale, which arrived here light Sunday, commenced loading Monday morning at the Iowa elevator and completed loading at the Saint Paul elevator a cargo consisting of 162,244 bushels and 26 lbs. of corn on a draft of 16½ feet aft, 16 feet forward. The large steamer with her record breaking cargo experienced no difficulty in getting down the river and left this port Monday night.

The United States revenue cutters Gresham and Fessenden are at this port and will with the revenue cutter Calumet take part in the proceedings of the unveiling of General Logan's statue on the lake front on Thursday, a large fleet of yachts and of vessels of the merchant marine will also be in line off Chicago.

J. A. Calbick & Co. chartered the steamer W. P. Ketcham and consort Geo. B. Owen for corn to Lake Ontario ports at 2½ cents, steamer Toltec and consort Miztec for lumber, Serpent River, Georgian Bay to Chicago, at $1.25 free on the rail, steamers Normandie and Isabella J. Boyce and schcooner Geo. J. Boyce, lumber, Ashland to Chicago at $1.50, steamer J. H. Prentice and consorts Halsted and Middlesex for corn to Buffalo at 1¼ cents, steamer Toltec and consort Miztec for corn to Prescott at 2½ cents, schooner Hattie Wells for salt, Manistee to Toledo at 10 cents per barrel, schooner Ida Olson for lumber, Manistique to Chicago at $1.00 free over the rail, the steamer George H. Hadley for corn to Buffalo at 1¼ cents.

Tuesday afternoon General Wilson, chief of engineers of all river and harbor improvements, accompanied by Major Marshall of the United States Engineer Corps. Mayor Harrison, City Engineer Carter, Captain J. S. Dunham and other members of the Chicago Harbor Improvement Committee, also a delegation of the Commissioners of the new drainage canal, made a trip up both branches of the Chicago River on the steamer Viola. The gentlemen who accompanied General Wilson informed him as to the magnitude of the commerce of Chicago and of the urgent necessity for deepening and widening the Chicago iver and they hope to have his support through a favorable recommendation to Congress to have the improvements required carried out. The Record correspondent was one of the party who gave the general to understand our needs here, and we hope to see the same carrid out in due course.

CLEVELAND.

Special Correspondence to the Marine Record.

At the yards of the Ship Owners' Dry Dock Co. the steamer Wallula has undergone a thorough overhauling this week and leaves the dock to-day. The Quito docks for searching up and any necessary overhauling or repairs.

The Canadian steamer Algonquin loaded rails here this week for the Canadian Pacific Railroad Co., and a further shipment is looked for the Northwest. The Dominion can't compete with the United States in manufacturing railroad iron.

Capt. Tuttle is out of town this week on marine insurance business. With. Mr. Walter Miller as consulting engineer and mechanical expert that London insurance company doing business on the lakes this season are well represented. Capt. Tuttle is above reproach and Mr. Miller is a good deal like the "rock of ages."

The Cleveland Dry Dock has been quite busy this week and it would appear as if the better facilities that was offered at a port for dry dock work that is where the vessel will go. Cleveland has all the dry dock accommodations necessary for a lake port and Capt. Brown, of the Cleveland Dry Dock Co., is one of the most obliging men in the trade. He does his work right and is therefore duly appreciated.

The contractors are almost ready to begin the work of repairing the west breakwater. The machinery is in place and work will be started in a few days. The old breakwater is to be torn down about three feet below the water line and a new topping will be put on. This will consist of blocks of concrete nine feet long and four feet wide and thick. This will then present a lasting and sightly protection to the port.

The Bureau of Navigation, Treasury Department, says those customs collectors at small lake ports, who are paid by fees alone, evidently do not understand the law as it now stands. Until July 1, these collectors charged every vessel entering port 50 cents, and every one clearing the same and pocketed the money. As the law now reads, they should charge the vessel nothing, but should keep their books exactly as heretofore, except that the 50-cent fee is in each case now charged to the government and collected from the United States Treasury. This, it will be seen, leaves the collector's salary the same as before, except that he now collects it from Uncle Sam, instead of from the vessels. The process of collecting from the government is exactly the same as the collecting of other fees paid by the government.

Collector of Customs Zehring has imposed a fine of $1,500 on the steamer George T. Hope. The case had been reported to him by the revenue steamer Calumet, stationed at Chicago. The Hope was fined $500 for having only one pilot, $500 for having an insufficient number of water pails, and $500 for not having her name on her oars and axehelves. This amount will of course be cut down to a merely nominal penalty.

BUFFALO.

Special Correspondence to the Marine Record.

William F. Cody, (Buffalo Bill), Postmaster Howard H. Baker, George Bleistein and the crew of the yacht Cynthia of Detroit were included in a party that enjoyed a trip up the lake on the yacht Enquirer this week. Mr. Baker is a ship chandler and is of course an enthusiastic yachtsman.

The examination of the steamer New York discloses damages from going on Waverly Shoal much heavier than was expected. It will cost about $6,000 to replace keel and garboards.

Last week the steamer North-West made the run from Two Harbors to Duluth, twenty-six miles, in an hour and thirteen minutes, which is a small fraction more than twenty-one and one-quarter miles an hour.

Fire destroyed the planing mills of the Union Dry-Dock here on Wednesday afternoon, and damaged the steamer Chili, which was in the dock. At one time it was feared that the wind would drive the flames into Mills' shipyard, but the fire tugs kept them under control. The steamer Rochester had just left the dock, and the Chili had gone in for minor repairs. The damage to her will be $1,000 and to the planing mill $20,000.

The steamer Savona came in on Monday afternoon and in going up the creek she became unmanageable, and taking a sheer struck the steamer F. & P. M. No. 5, which was lying at the Lackawanna warehouse. The F. & P. M. boat received considerable damage near the water line, amidships. The amount will not be known until an examination is made. The Savona went onto the bottom, but released herself after plowing through the mud for some time.

GARDEN ISLAND, ONT.

Special Correspondence to the Marine Record.

The barge Siren, laden with deals for Montreal, which broke away from the tug Iona and ran ashore on a shoal in the middle of Rapid-Du-Plat, was released from her perilous position by Calvin's wrecking appliances and the tug Reginald. As the current where the Siren lay runs fully twelve miles an hour and is one of the most dangerous places in the river it is considered one of the most brilliant wrecking feats on record. When the tug Reginald moved her, populace viewing it from the banks of the Morrisburg Canal gave vent to loud hurrahs for Capt. Tom Brien, Calvin's veteran wrecker.

FLOTSAM, JETSAM AND LAGAN.

When Uncle Sam passes a law to fire Canadian labor, it is high time for Canada to pass a law to prevent alien ownership of Canadian timber.—Hamilton Spectator.

The Canadian steamer Cuba, bound for Montreal, with passengers and freight, ran on the rocks at Lancaster Light, twelve miles below Cornwall Canal. Calvin & Co.'s tug Parthia went to her assistance and towed her to Montreal. The steamer is leaking slightly, and must be dry docked for repairs and survey.

I wish that the owners and patrons of the roads shall have justice done, but speaking for myself I hope to live to see the day when a ship can be loaded in San Francisco and cross by a canal and go to New York without going around South America.—(Extract from speech of William J. Bryan at Central Park, July 7th.)

England receives about $400,000,000 a year from the amounts it has loaned to foreign countries; $400,000,000 to $600,000,000 net from its merchant marine, which carries three-fourths of the merchandise that crosses the seas, and $400,000,000 to $600,000,000 more from the profits realized by its citizens settled in its colonies or foreign countries and engaged there in trade or manufactures. With these $1,400,000,000—$1,600,000,000 received from abroad, which the custom statistics make no mention of, England is able to meet the balance of trade against it, which exceeded $1,000,000,000 in 1896, and the expenditure of its citizens traveling abroad, which, deductions made of a like expenditure of foreigners traveling in England, are not less than $200,000,000. There actually remains, therefore, to England, notwithstanding the enormous trade balance against it, an annual surplus obtained from abroad of $200,000,000 to $400,000,000, so says Rand & McNally, of Chicago, in their monthly record of current events.

CRANKS WILL NEVER DIE.

A curious looking craft is being constructed in Polson's shipyard, Toronto. It is the invention of Mr. F. A. Knapp, of Prescott, Ont., and, like many other inventors, he has had great difficulty in getting anyone to believe in the utility of his invention. He first conceived his idea about three years ago, and commenced working on the principle that if it was quite easy to turn a saw log in the water, even when it is nearly wholly submerged it would naturally take but very little power to keep a large and heavy tubular construction moving when once it was set in motion, particularly when, by reason of its air-tight compartments, it would practically be resting on the surface of the water. He also thought that if such a construction was once started, it would acquire tremendous speed, assisted by the force of its own momentum. He eventually had a little model made, and submitted it to a number of gentlemen who were interested in solving the problem of a quicker ocean passage, but all at first scouted the idea. Nothing daunted, Mr. Knapp continued his experiments, some of which led to improvements, and he finally met in Toronto the naval architect who is now supervising the construction of the vessel. After many vicissitudes at home and abroad, often experienced by inventors, Mr. George Goodwin, the Ottawa contractor, be-

came interested. The result was that negotiations were entered upon with the Polson firm, and it was finally decided to construct an experimental craft, Mr. Goodwin guaranteeing at least $10,000 of the expense. Since commencing to put the craft together, the builders have also become enthusiastic, and the experiments will now be carried on no matter how great the expense. Perhaps the best illustration of the principle involved in this novel vessel would be to think of a squirrel in a revolving cage, the engine of the craft being the squirrel, or to think of a huge paddle wheel without a ship. Imagine the paddle wheel to be 110 feet long by 22 feet in diameter. The stationary paddles on the outside cylinder and in the center of the vessel will be sixteen in number, and twenty feet in length, and will correspond to the buckets of paddle wheel. In the center of this huge paddle wheel imagine a cylinder twelve feet in diameter, braced strongly to the outside cylinder, with a shaft in the center of this twelve-foot cylinder, and connected with a vessel, one would have an ordinary paddle wheel in shape and principle. But in the vessel now under construction in place of the shaft there is a third cylinder, which will be joined to the outside or revolving portion of the vessel by ball bearings. Inside this third cylinder a platform will be constructed, on either side of which engines of 150-horse power will be placed. By means of friction these engines will cause the outside cylinders to revolve rapidly, while the inside cylinder retains its equilibrium. It is intended to provide passenger accommodation within the inside, or third cylinder, the outside or revolving cylinder being used as air-tight compartments. The ends of the inner cylinder will be open, and as they will be eight feet above the water no trouble is expected from waves. The actual draft of this cylinder boat will, it is expected, be only about two feet six inches, which will allow it to roll on the top of the water. The steering gear will consist of chains and steel plates, on the lee board principle, which will be placed at each end of the vessel. The material used is quarter-inch steel stoutly ribbed. The vessel will be ready for launching at about the end of July, and then it is thought that about six weeks will be required to put the machinery in place, so that the trial trip will not take place before August 1. If the thing proves a success the great vessels will be constructed chiefly for the passenger trade, as time would be too valuable to allow of much of it being taken up in loading and unloading freight. Ample ventilation will be furnished by the open ends and by means of diamond-shaped ventilators cut in the outside cylinder in the center and in other places where they will be found to be needed. These will be cut on the same principle as the holes in the bottom of a lifeboat. They will also serve to let out the smoke from the engines. The draught will be obtained by reason of the terrific speed of the vessel. As intended at present there will be sixteen paddles placed amidships, each paddle being twenty feet in length.

VIOLATION OF SOO RIVER RULES.

List of vessels reported and warned for violation of St. Mary's River rules since June 13th:

Reported:

Northern Wave, June 16, Rule I.
Neshoto, June 17, Rule I.
Northern Queen, June 18, Rule I.
Christopher Columbus, June 24, Rules I and VI.
Lagonda, July 1, Rules I and III.
Nyanza, July 5, Rules I and III.
Marigold, July 4, Rule I.
R. R. Rhodes, July 10, Rule II.
Wawatam, July 12, Rule I.

Warned.—Caledonia, J. F. Eddy, Geo. Hadley, V. H. Ketchum, J. C. Lockwood, Langell Boys, Lansing, Linden, Mariposa, Michigan, Majestic, Norwalk, North West, North Land, St. Andrew, R. E. Schuck, M. Sicken, Sir S. L. Tilley, Watt.

THAT ARMOR PLATE DEAL.

The Iron Trade Review says: "After threshing over the armor plate dispute once more, with all its opportunities for oratory of the Tillman type improved to the fullest extent, both House and Senate decided last week that $300 should be the maximum paid for plates for the three battleships now under contract. The whole proceeding in this matter has been arbitrary, ex parte, and utterly regardless of the just deserts of the manufacturing companies. Technical information has been treated as valueless, lay opinion alone receiving consideration; and even the figures of the last Secretary of the Navy, which have been shown to be entirely inadequate in their allowance for the expenses of armor plate manufacture, have been discounted by the rampant Populist sentiment that so largely controls in the Senate. American armor plate, on the testimony of engineers representing foreign powers, is the best in the world; yet in the Congress of the United States those who have ventured vast sums on their faith that the Government would deal justly, get only abuse and contempt. Meantime the naval defense program comes to a standstill at a time when more than ever the ability to maintain a position in the midst of international complications is essential to national honor and self-respect."

Both the House and the Senate are sadly at fault in not awarding a just compensation for the labor involved in getting out armor plates and they may learn the lesson later.

MARITIME LAW.

THE BERTHA M. MILLER.

Tarr et al. v. Jordan et al.

(Circuit Court of Appeals, First Circuit, March 23, 1897).

No. 204.

Maritime Lines—Supplies—Presumption of Necessity.

To create a lien for supplies ordered by the master in a foreign port, it must appear that the supplies were reasonably necessary, and that a credit to the vessel is necessary. The necessity for the supplies may be presumed from their nature, and from the fact that the master ordered them; and in the absence of other facts, the necessity for binding the vessel may also be presumed. But if the supply man knows that the master has funds of the owners, or of his own, credit to the vessel is not authorized, and no lien is created.

Same.

One furnishing a small amount of supplies to a fishing vessel in a foreign port, on the order of the master, has no lien, though he give credit on his books to the vessel and owners, when he knows that the vessel brought in and sold for cash sufficient fish to furnish means of payment. Nor is it material that the vessel departed on the day of receiving the supplies, no fraud being practiced.

Appeal from the District Court of the United States for the District of Massachusetts.

This was a libel in rem by Fritz H. Jordan and others against the schooner Bertha M. Miller, (James G. Tarr and others claimants), to enforce an alleged lien for supplies. The district court rendered a decree for libelants, and the claimants have appealed.

An opinon was filed below by Nelson, District Judge, July 16, 1896, in the following terms:

The supplies in this case were furnished to the vessel in a foreign port upon the order of the master. The evidence is sufficient to prove that the supplies were furnished upon the credit of the vessel, and that the libelants had no knowledge that the vessel was run on shares or under a charter that provided that the characters should supply the vessel for the voyage. As the supplies were necessary for the voyage, and the prices charged were reasonable, the libelants have, by the maritime law, a lien on the vessel therefor. Decree for libelants $114.29, with interest from September 1, 1894, and costs.

THE J. D. PETERS.

Hogan et al. v. The J. D. Peters et al.

(District Court, N. D., California. December 18, 1896).

No. 11,292.

Seamen's Wages—Deductions and Offsets—Burden of Proof.

Where the answer admits that the wages claimed have been earned, but claims deductions for payments on account and offsets, the burden is on the master to show such payments by preponderance of proof.

Same—Shipping Articles in Coastwise Trade—Allotment.

Repeals by implication are not favored. In the act of February 18, 1895, congress in providing for the omission of item No. 8, of Rev. St. sec. 45111, relating to allotment of wages, in its application to the form and contents of shipping articles in the coastwise trade, did not repeal, by implication, the positive enactments of the acts of June 26, 1884 (23 Stat. 55), and June 19, 1886, (24 Stat. 80), permitting allotments.

Same—Slop Chest—Profit on Sales.

The provision in Act June 26, 1884, Sec. 11, allowing but ten per cent profit on articles sold to seamen from the slop chest, on vessels mentioned in Rev. St., Sec. 4569, (which mentions vessels bound on a voyage across the Pacific), will be applied, by analogy, to a sailing vessel on a voyage from our Pacific Coast to Alaska, even though this be not considered a voyage across the Pacific.

Estoppel—Offer to Compromise—Seamen's Wages.

Pending a suit for seamen's wages, one of the libelants, needing money, wrote the master, offering to accept a certain sum in full payment, and saying that, if such sum was paid into court, the suit, so far as concerned his claim, might be dismissed. The sum was accordingly paid into court, but libelant never called for it, and subsequently pressed the suit for the full payment. Held, that his conduct did not prejudice his right to recover a larger sum.

Libel in rem for balances claimed for seamen's wages. Decree for libelants, after allowing claimants to deduct certain allotments authorized by section 10 of the act of June 19, 1884, as amended by section 3 of the act of June 19, 1886, in coasting voyages, and allowing a charge of ten per cent. above the wholesale price for such articles of wearing apparal as were furnished by the master from the slop chest during the voyage to certain of the libelants.

IN THOSE DAYS THERE WERE NO PASSES.

The above caption is the legend hanging over Mr. W. F. Herman's desk, general passenger agent of the Cleveland and Buffalo Line of steamers. The romance goes on to detail according to Holy Writ as follows: "Thou shalt not pass," Num. xx-18. "Suffer not a man to pass," Judah. "The wicked shall no more pass," Nahum, 1-15. "Though they roar yet they shall not pass," Jeremiah. "So he paid his fare and went," Jonah, 1-3.

"Those who run may read," but anyone that takes a chair in Mr. Herman's office may read the foregoing while seated. Passing the passed is a back number now and Mr. Herman, while always courteous to those who pass by, no doubt feels like saying about fifty times each day, "As you are weighed pass out," thereby fulfilling the scriptural programme and easing his own conscience at the same time.

LIST OF LETTERS RETURNED FROM MARINE P. O. AND ADVERTISED AT DETROIT MICH.

JULY 23rd., 1897.

Bellor, Jos., Steamer Mather.
Benson, Henry E., Steamer Brazil.
Glennie, Geo. D.
Grammes, John. (2).
Goldsburg, John.
Harris, Capt. H.
Hastings, Dorville.
Howard, F. H.
Hoover, Capt. H. E.
Kiney, Jos., Steamer Mather.
Kenyon, A. B.
McCorry, Thos., Steamer City of Bangor. (2).
Mountain, Jas.
Mason, Mary.
Plush, A. D.
Peterson, John.
Pether, Robert.
Ryan, Wm.
Rattray, Wm. P.
Ramplin, aJs. G., Steamer Home.
Stackwell, F., Steamer Sitka.
Trelraven, W. P., Steamer Sitka.
Tompson, O. W., Steamer W. H. Crosthwaite.
Taylor, George. (2).
Wagner, Jno., Steamer Sitka. (2).
Webster, Frank, Steamer S. C. Baldwin.
Williams, Jacob, Schooner Baltic.

JNO. J. ENRIGHT, Postmaster, per M. E. P.

CAPT. PERRIGILL'S ROWING.

"You want to hire a boat?" said Hiram Toothaker, the old fisherman who lived at "the port." "Come down here for the sea air and to work off your flesh? Well, rowin's a good thing, but you don't want to go 'bout it like old Cap'n Perrigill did." And then he told the story thus—though the doctor and the "cap'n" probably did not misuse the English language as he made them do: "You see, he was smart enough 'bout some things, but dreffle lazy 'bout others, and he never took very much exercise after he gave up the sea and got a snug berth ashore. After a while the old cap'n he began to get fleshy, and one day, when he'd tipped the scales at two hundred 'n' fifty, he went up-town to see a doctor.

"'Take more exercise,' says the doctor.

"'Aye, aye,' says the cap'n, 'but what'll I do?'

"'Try horseback ridin',' says the doctor.

"'No use,' says the cap'n. 'I don't own no such craft; and if I did, I'd be sure to fall over the stern rail and get afoul o' the propellers.'

"'Bicyclin', then.'

"'Wuss and wuss. If I've got to navigate either craft, I'd just as soon be pitched over the stern o' one as over the bow o' t'other.

"'Can't you try some game, then, say tennis?'

"'No use,' says the cap'n. 'I run aground in a tennis court last summer over to the "P'int" with some o' them summer folks. They gave me a short-handed dip-net and a leetle rubber ball. I hit the ball fair and squar' with the dip-net, and when I left they was still huntin' for it over in the next field. Don't think I could play tennis.'

"The doctor was a mite puzzled, but he thought a while, and then says:

"'Why not try rowin'?'

"'Just the very thing!' says the cap'n. The doctor tells him to come back in a week and report, and he goes off.

"Well, in a week the cap'n comes back agin, and says rowin' don't do him no good, and he's gained three pounds. The doctor was a little huffy to think his advice hadn't worked, but he says to the cap'n:

"'The trouble is, you haven't rowed long enough. Now you row four hours steady every day, right out in the hot sun, and if that don't take the flesh off'n you, there ain't anything that will.'

"The cap'n went off, but another week he was back agin, lookin' plumper'n ever, and told the doctor he'd taken his four hours o' rowin' regular, and gained seven pounds. Doctor was up and down angry, and he told him to make it six hours a day and drink sour things.

"A day or two after that the doctor had to go 'cross the harbor to see a patient. He took the ferry-boat, and was standin' on deck, when 'bout half-way over they passed a rowboat. And what did the doctor see in the rowboat but Cap'n Perrigill, a-settin' cool and contented in the stern with a sun-umbrella over his head, and takin' his full six hours o' rowin' as prescribed, with a small boy pullin' the oars! You see, he'd been a ship's officer for years and years, and it never occurred to him that he was expected to row for himself."

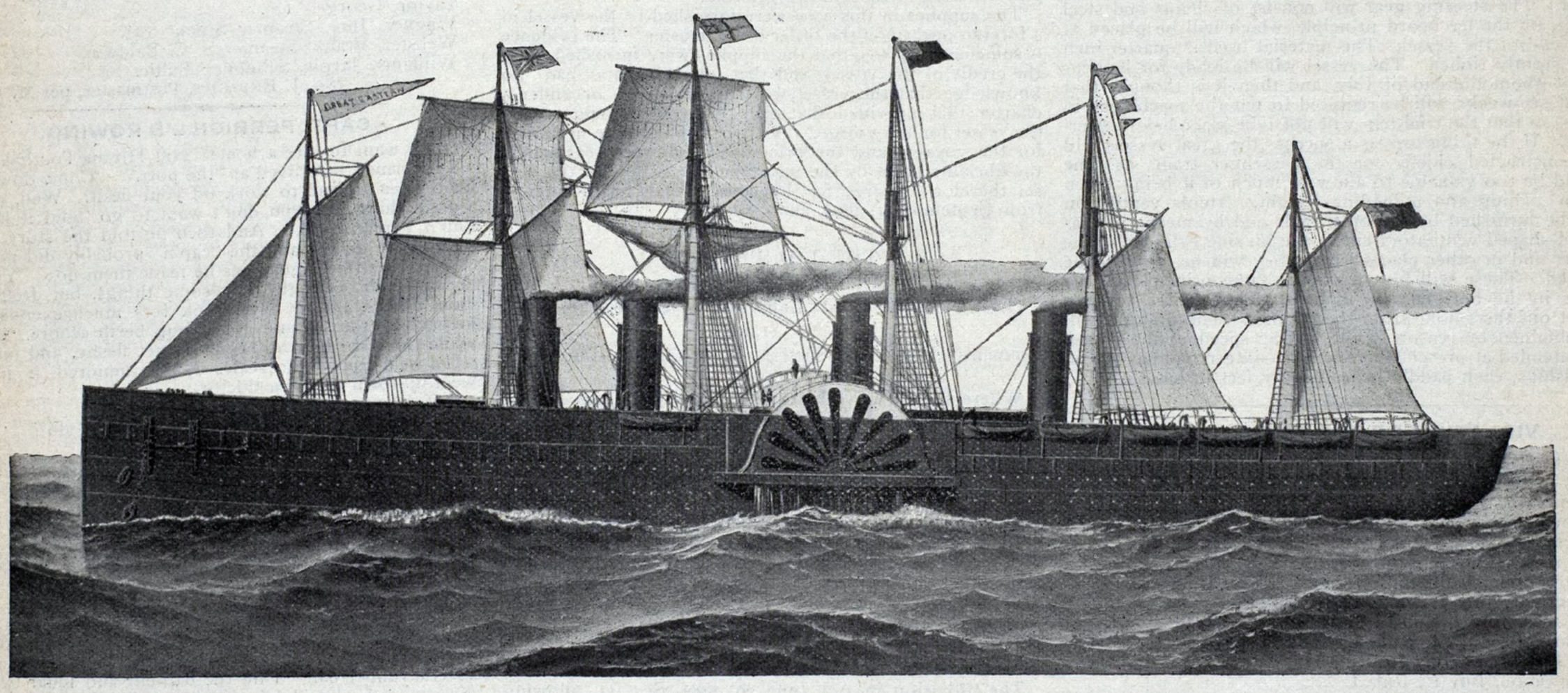
The foregoing story is sent us this week by that well-known, veteran lake mariner, (now retired), Captain Charles Gale, Sombra, Ont., who, if memory serves us right, was the first white child born in (Fort Dearborn), Chicago. So that he is certainly no spring chicken at this date:

STEAMSHIP GREAT EASTERN.

(From the American Builder.)

(Illustrated.)

This remarkable vessel, of which we give a very true picture herewith, was built at Millwall, on the Thames, (London) in 1858, by J. Scott Russell, from plans of the great civil engineer Isambard Kingdom Brunel. She was described in detail a few years ago in a paper read by Francis Elgar before the Institution of Naval Architects, two sets of propelling machinery—one for driving a screw London, from which we quote: "The Great Eastern had and the other for paddles. The latter engines were constructed by the builder of the hull and were of 3,500 H. P. The screw engines were built by Boulton & Watt, of Soho, and indicated 4,500, so that the maximum indicated horse power was about 8,000. This power gave a speed of 14½ knots, and a coal consumption of 400 tons per day. There were four cylinders to each set of engines, those of the screw engines being 7 feet diameter, with a stroke of 4 feet; and those of the paddle engines 6 feet 2 inches diameter, with a stroke of 14 feet. The screw was four-bladed, and had a diameter of 24 feet, with 44 feet pitch. Revolutions of screw, 55, and of paddles, 12 per minute. The working steam pressure appears to have been about 20 lbs., and steam was cut off in the cylinders at one-third of the stroke. There were ten double-ended tubular boilers of the square box type, 18 feet long, 17 feet 6 inches wide, and 14 feet high, with 112 furnaces. The dimensions of the vessel were, length over all, 692 feet, between perpendiculars, 680 feet; beam, molded, 82 feet 2 inches; outside of paddle boxes, 118 feet; depth (molded) to upper deck, 58 feet; height of side to bulwark rail, 70 feet; freeboard from water line to covering board or plank shear, 37 feet. Gross register, 18,915 tons; load draft, 30 feet; passenger accommodations, 800 first-class and 2,000 second-class. The iron shell plates of the Great Eastern, which were ¾ inch thick, were only 10 feet long and 2 feet 9 inches wide. The weight of one of these plates was about 7¼ cwt. The bulkhead plates were ½ inch thick, and about 9 feet long by 3 feet wide. The Great Eastern was entirely built with single riveting, the double riveting being at the butts mostly. The vessel cost about $725,000. Her construction was commenced May 1, 1854, and she was built broadside on to the very flat pitch ways. The launching process began November 3, 1858, and occupied three months, hydraulic power being employed. The Great Eastern visited New York in 1860, and again in 1867. The only great work she ever accomplished was the laying of the Atlantic telegraph cable, due to the enterprise of the late Cyrus W. Field. The vessel was sold for old iron about twelve years ago and was broken up at New Ferry, on the Mersey, opposite Liverpool. In Chambers' Encyclopedia will be found the half breadth and body plans of this famous steamer, which was originally fitted with seven masts—one mast for every day of the week, as sailors used to say. At the time she was sold her rig was as shown in our illustration.



THE GREAT EASTERN.

Built in 1858. Length, 692 feet; beam, 82.2 feet; draught, 30 feet; tonnage, 18,915.

VESSELS CLASSED.

The American Shipmasters' Association, New York, have classed in the Record of American and Foreign Shipping the following vessels during the week:

American schooner Hester A. Waters, screw steamers Menemsha and Princess Anne, also the British schooner Muriel.

CANADIANS ALIVE.

The Canadian Government has fitted out the steamer Diana and despatched her from Halifax to examine and report upon the possibility of making Hudson Bay a channel for the grain export trade from the British Northwest Territory to Europe. It is thought that Hudson Bay, as well as Hudson Strait (which connects that vast inland sea with the Atlantic), might be navigated for the greater part of the year without danger from drifting ice. The object of the Diana expedition is to decide this question, and in case of a favorable solution, the formation of a line of steamers has been planned for undertaking, in combination with the Canadian Railway, the carriage of grain from the fertile districts of Manitoba direct to European markets, and skipping the United States transit ports.

COLLISION ON LAKE HURON.

The Anchor liner Susquehanna and the Owen liner Ira H. Owen, met in collision in the thick fog off Presque Isle Point, Lake Huron, on Tuesday morning. Both vessels were badly damaged. The Susquehanna made her way to Middle Island. She was bound from Buffalo to Chicago with a cargo of merchandise, and the Owen was bound from Chicago to Fairport, O. The fog was very dense, and the two boats met head on. The stem of the Owen was entirely carried away, and it is thought her bows are also badly stove in.

The Susquehanna is not so badly injured. Up to the collision bulkheads on both boats are full of water, but it is claimed the cargoes are not being wet, as the bulkheads are water tight.

The captain of the Susquehanna states that the cargo on his ship is uninjured, and that the pumps keep the water down. He will make no statement regarding the Owen, but claims that at the time of the accident he was running under a check on account of the dense fog.

The Middle Island life saving crew went to the assistance of the Anchor liner at once, and did everything in their power to help the crew make temporary repairs.

The Susquehanna proceeded to Chicago from Middle Island accompanied by the Lycoming of the same line, which saw her lying at the island and went to her. The Susquehanna has but 600 tons of cargo. She is not leaking badly and it is believed she will get through without serious damage to her cargo. Her bow and forward deck are badly stove in.

The Owen had a number of passengers, several being ladies, and they were panic-stricken at the time of the collision. The captain of the Owen says both boats were under check at the time of the accident, as it was very thick. He lays the blame on the captain of the Susquehanna, as he says both steamers were blowing port whistles and the Susquehanna struck him on the starboard side, almost head on. The Owen was leaking so badly that she had to remain at Alpena for temporary repairs and further survey.

EASTERN FREIGHT REPORT.

Messrs. Funch, Edye & Co., New York, state in their weekly freight report that under the stimulating influence of excellent prospects for home crops and anticipated large demand from Europe, coupled with the fact that the continued scarcity of prompt boats has driven parties short of tonnage into cover, our freight market for steamers has ruled active, with an advancing tendency, and freights close at the time of writing at the best figures yet established for this season's business. The rates for grain cargoes to Cork f. o. b. have advanced to 3s 1½d for August, 3s 3d@3s 4½d for September, although the demand for the later periods is by no means as yet a pronounced one. Berth freights have risen to 2s 7½d and 2s 9d for August and September, with some business at the lower rate for prompt boats, but these figures are as yet considerably above the freights accepted by regular liners on their routes. Freights at the deal and timber ports continue to rule firm at a moderate advance. The flurry for tonnage in the Gulf ports for August appears to have subsided, under the influence of a few charters closed for this period; for September and later months fixtures have been effected at from 38s 6d@40s, as to ports, on the lump sum basis.

The scarcity of sail tonnage, both on the spot and to arrive, continues, and freights show an advance in several instances where prompt shipment was imperative. The demand for vessels continues fairly active in most branches, including case oil for the Far East, general cargo for the Colonies, lumber and timber freights, but charters are not plentiful, as owners are holding back their tonnage in hope of securing later substantial advances by momentarily keeping out of the market.

DEPARTMENTAL REPORT ON A CANAL FROM THE LAKES TO THE HUDSON RIVER.

The Secretary of War has transmitted to Congress the report of the chief of engineers on the preliminary examination made by Major T. W. Symons, of the Corps of Engineers, U. S. Army, of a ship canal from the Great Lakes to the Hudson River. The work was done in accordance with a provision in the last river and harbor bill directing the examination and calling for estimates of the cost of construction of the most practicable route of such a canal, wholly within the United States, or sufficient capacity to transport the tonnage of the lakes to the sea.

Gen. Wilson, Chief of Engineers, says in the report that it is the opinion of the local officer that the best route for a ship canal is that by way of Niagara River, Lake Ontario, Oswego, Oneida Lake and the Mohawk and Hudson Rivers, and that this would cost, at rough estimate, $200,000,000. But Major Symons is also of opinion that the Erie Canal, when enlarged under the existing plans of the State of New York, would, if the restrictions imposed by the state upon its use be removed, give commercial advantage, practically equal to the commercial advantages of a ship canal. Major Symons further ship canal is not a project worthy of being undertaken by the general government for the reason that its benefits would not be commensurate with its cost.

If this can be further improved by enlargement to a size sufficient for 1,500-ton barges, making the necessary alterations in its alignment so as to continuously give a descending canal all the way from Lake Erie to the Hudson River and canalizing the Mohawk River, Major Symons says, such an improved canal, navigated by barges, would enable freight to be transported between the East and the West at a lower rate than by ship canal navigated by large lake or ocean vessels, and he states that the enlargement of the Erie Canal as suggested, with everything adapted to transport the tonnage of the lakes, is a project worthy of being undertaken by the government, as the benefits derived would be commensurate with the cost, which is estimated approximately at one-fourth that of a ship canal.

Gen. Wilson says that owing to insufficiency of the appropriation only ordinary preliminary examination was made. He says Major Symons, who made the examination, found three possible routes for a ship canal, wholly within the United States. The first extends from Lake Erie via the upper Niagara to the vicinity of Tonawanda or Lake Salle; thence by canal with locks to the lower Niagara, at or near Lewiston or some point on Lake Ontario; thence through Lake Ontario to Oswego; thence up to Oswego and Oneida River to Oneida Lake, through Oneida Lake; thence across the divide to the Mohawk and down the Mohawk to the Hudson at Troy. This is designated as the Oswego route and is the one Major Symons thinks the most practicable.

The second route follows the line of the Erie Canal from Lake Erie and the Niagara River to the Hudson.

The third coincides with the first from Lake Erie to Lake Ontario, running thence through Ontario to the St. Lawrence River and down the St. Lawrence to some point near Ogdensburg; thence crossing the State of New York to Lake Champlain and up to its head; thence following in general the route of the Champlain Canal to the Hudson at Troy. While Major Symons mentions this as a possible route, he is of the opinion that it is not a practical one.

Allusion is also made in the report to still another route, the St. Lawrence-Champlain route, all of which, except a small portion, is in the United States.

The rough estimate, $200,000,000, covers any of the possible routes mentioned. But this estimate, says the report, depends to a very great extent upon the action of the State of New York in regard to its canals, feeders, reservoirs, etc. To maintain such a canal, operate the locks, keep it in repair, etc., would cost at a rough estimate $2,000,000 a year. Such a canal, if constructed, would, the report says, have no military value, Major Symons is of the opinion, says the report, "that the construction of such a canal is not a project worthy of being undertaken by the government, as the benefits to be derived therefrom would not be properly commensurate with the cost." The cost of the necessary surveys for a ship canal along the Niagara-Oswego route is estimated at $190,000, an entirely independent survey for the enlargement of the Erie Canal $125,000, a combined survey of both $250,000. In transmitting Major Symons' report the divisions engineer, Col.G. L. Gillespie, says: "The subject of transporting the tonnage of the lakes to the sea is exhaustively treated in this report, and the facts stated and the arguments thereon relative to the methods to be followed are worthy of the closest study by Congress."

No definite conclusions and recommendations can be given relative to location and methods of construction, he says, until after the suggested surveys have been made.

RATES FOR MARINE INSURANCE AT THE PORT OF NEW YORK.

The following statement exhibits the rates of marine insurance charged by the underwriters on vessels and cargoes sailing from and to the port of New York, to and from domestic and foreign ports during the year 1896. Prepared under the direction of Mr. W. H. H. Moore, president of the Atlantic Mutual Insurance Co. for the New York Chamber of Commerce.

DOMESTIC PORTS.	1896. SAIL.	1896. STEAM.
New York to Boston	½@1	⅛@ ¼
" Providence	¼— ⅜	1/10— ⅛
" Portland }	¾—1	¼— ½
" Portsmouth }		
" Baltimore	½— ¾	¼— ¾
" Charleston	¾—1	¼— ½
" Pensacola	1½—2	1 —
" Key West	1¼—2	4/10— ⅝
" Mobile	1¼—2½	¾—
" New Orleans	1¼—2½	3/10—1
" Galveston	1¼—2½	3/10—1
" San Francisco	2 —4½	1½—3
Free from par av	2 —2½	.....
Via Isthmus	.....	1 —1½
Free from par av	.....	⅞—1¼
FOREIGN PORTS.		
New York to London	¾@2½	⅜@1
" Liverpool	¾—2½	⅜—1
" Glasgow	¾—2½	⅜—1
" Cork	¾—2½	⅜—1
" Havre	¾—2½	⅜—1
" Hamburg }	1 —2½	½—1½
" Bremen }		
" St. Petersburg	1½—6	.....
" Bordeaux	1 —2	4/10—1
" Genoa	1 —1¾	⅝—1½
" Smyrnia }	1½—2½	¾—1¼
" Trieste }		
" Cape Town, C. G. H.	2 —2½	⅞—1¼
" Canton }	2¼—4	1½—3
" Hong Kong }		
" Shanghai }	2½—4	1¾—3
" Japan }		
" Vera Cruz	1½—2	½—1
" Aspinwall	1½—5	⅝—1
" Havana	1 —2½	⅜— ¾
" Port au Prince	1¾—2½	⅝—1¼
" Rio de Janeiro	1¼—1¾	¾—1¼
" Bahia	1½—1¾	¾—1¼
" Valparaiso via Cape Horn	2½—3	1¼—3
" Acapulco via Isthmus	3 —3½	1⅛—1
" Panama via Isthmus	3 —3½	⅝—1
" Honolulu	2 —3½	.....
" Honolulu by Railroad to San Francisco	.....	1 —1½
" Ports in Central America via Isthmus	.....	⅞—1¼
" Ports in Central America via Cape Horn	3 —4	.....

COLOR FOR WAR SHIPS.

Every maritime government has made experiments to determine what color of paint can be used in order to render war ships as nearly invisible as possible, and it has been found from experiments made in the United States navy that the best results are obtained with a certain shade of olive green. This color is least easily seen in a greater proportion of conditions than is any other color. It blends so well in the daytime with the grayish tinge of the atmosphere near the ocean surface, that it is far less liable to be seen than is black or white. Drab, which color was much used for blockade runners in the late war, is also very hard to distinguish by day, and especially in a fog, but with a search light it can easily be seen at night. White is more commonly used in our navy, at the present time, than any other color, but it is very easily seen in the daytime, and is readily observed with the search light.

NOTICE TO MARINERS.

Treasury Department,
Office of the Light-House Board,
Washington, D. C., July 13, 1897.

MILWAUKEE LIGHT STATION.

Notice is hereby given that, on or about July 20, 1897, the color of the buildings at this station, on the extreme north point of Milwaukee Bay, will be changed from brown tower and white dwelling to buff tower and dwelling, with a red roof on the dwelling.

POVERTY ISLAND SHOAL GAS BUOY.

Notice is hereby given that, on July 5, 1897, the characteristic of the light on this red gas buoy, marking Poverty Island Shoal, about 2½ miles NW. by W. ¼ W. from Poverty Island Light House, inside the entrance to Green Bay from Lake Michigan, was changed from fixed to flashing white every 10 seconds, without other change.

BLACK RIVER SHOAL GAS BUOY.

On July 2, 1897, a black gas buoy, showing a fixed white light, was established on the easterly edge of the middle ground off the mouth of the Black River and Port Huron, northerly end of the St. Clair River, in place of the former Black River Shoal Buoy, No. 1.

MUD LAKE TURNING GAS BUOY.

On July 4, 1897, a black and white perpendicularly striped gas buoy, showing a fixed white light, was established in Mud Lake, St. Mary's River, at the intersection of the range lines marked by the Pilot Island and Winter Point range lights, in place of the former Mud Lake Turning Buoy.

HAY LAKE CHANNEL ENTRANCE GAS BUOY.

On July 4, 1897, a black gas buoy, showing a fixed white light, was established on the westerly side of the channel in the northerly end of Little Mud Lake, St. Mary's River, to mark the beginning of the turn into Hay Lake Channel, in place of the former Entrance Buoy, No. 1.

MIDDLE GROUND GAS BUOY.

On July 5, 1897, a red gas buoy, showing a fixed white light, was established on the northerly side of the channel and the southerly side of the middle ground in the head of the St. Mary's River, about 1 1-3 miles west northwesterly from Round Island, in place of the former Middle Ground Buoy, No. 68.

By order of the Light-House Board:

W. S. SCHLEY,
Captain, U. S. Navy, Chairman.

GALLOO ISLAND LIGHT STATION.

Notice is hereby given that, on or about August 2, 1897, a 10-inch steam whistle will be astablished at this station, on the southwesterly end of Galloo Island, easterly end of Lake Ontario, to sound, during thick and foggy weather, blasts of 10 seconds' duration separated by silent intervals of 30 seconds, thus: Blast, 10 seconds; silent interval, 30 seconds; blast, 10 seconds; silent interval, 30 seconds. The fog-signal building is a one-story red brick structure, situated about 300 feet southwetserly from the light tower, and near the shore end of the landing wharf.

A RELIC OF PERRY'S VICTORY.

Incidental to the raising of the old schooner Porcupine by E. C. Richards, principal of the Fruitport schools, a short account of that historic old craft now comes in.

In Perry's famous battle on Lake Erie, the Porcupine played an important part and fought seventh in the line of battle, there being nine ships in the fleet. After the war of 1812 she became a trading vessel, and eventually became the property of Barber & Mason, pioneer lumbermen on Grand River, who used her in the lumber trade between Spring Lake, then called Mill Point, and Chicago. She was afterwards sold to Ferry & Sons, who used her in their extensive lumber trade, until she became unseaworthy, and she was then sailed up into Spring Lake and allowed to sink, in 1848.

During her last year on the lakes her condition was such that Capt. Pat Mahoney was obliged to hire a new crew at every point as it was a case of "pump ship" in order to keep afloat. Capt. Mahoney would change the worn out pump bolts for new ones and the new crew would examine the pumps with great satisfaction, which lasted only until they were outside the harbor. Capt. Mahoney used to say that he had been shipmates with everyable bodied sailor on the lakes, but had a very short acquaintance with each.

Old residents of Grand Haven recall the time when they played upon the decks of this historic old vessel and were shown the traces of hard usage received in the famous battle on Lake Erie. Col. William M. Ferry of Park City, Utah, formerly part owner of this craft, while visiting in Grand Haven the past winter, identified the vessel raised by Mr. Richards as the one sunk by him a half century ago.

At the time of the exposition in Chicago there was some talk of raising this boat and placing her on exhibition at that place, but her condition would not warrant the undertaking.

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CLEVELAND, O., JULY 22, 1897.

We ought to expect something more definite from the Light-House Board in their "Notices to Mariners" than they send out this week. Capt. Schley, U. S. N., Chairman of the Board, words his notices to read black gas buoys and red gas buoys; an old sailor such as he is, or ought to be, knows that black or red gas won't burn.

Let those go to the Yukon River that are gold struck. We have been there and would say to those contemplating a trip, to please hesitate before embarking. Our experience was purty hard" in prospecting around those diggings. Nor did we get so far up the Yukon as the find would indicate to be the most prolific field. Nevertheless we had enough of it.

It would appear that the Tapscotts, of Liverpool, have about gone to the wall. It is to be regretted that such an old Atlantic firm should end up in so ignominious a manner. We will see the same thing perpetrated on the lakes at a later date. The Tapscott deal is as follows, taken from Fairplay, London:

"On the examination of Mr. Tapscott it transpired that on the 28th May, 1895, £810 was paid to the credit of the Azov Company's banking account, but Mr. Tapscott said he could not recollect where it came from. It appeared that considerable sums of money had passed between the bankrupt and his brother, Mr. G. L. Tapscott, of London, in connection with the various steamship companies, but no correspondence or accounts could be found, and the bankrupt stated that he knew of no account. The Official Receiver remarked that there were large sums of money mysteriously dropping into the accounts just before the auditor was about to come to audit the accounts, and a number of these came from bankrupt's brother in London, but they were not sums due from him to the company. Mr. Tapscott said he could not recollect at the moment where the other amounts came from. He admitted that on the 7th June, 1895, just after the audit, he drew £350 out of the Azov banking account. On the 10th June another cheque for £250 had been drawn for "selves"; on the 13th June, £275 was drawn out; and on the 9th August, £500. When asked where these sums were, Mr. Tapscott said he did not know, or would not answer. He could not say positively whether the last £500 was paid to Messrs. Poole & Hughes, stockbrokers, on the 9th August, but he thought it was likely. Cheques for £238, £200, and £290 were drawn at different dates, but the bankrupt could not tell what had become of these moneys. The Aral Co. had been dealt with similarly by the bankrupt, and he was examined at length as to what had become of the money. Ultimately the examination was adjourned till the 14th inst. so that he might prepare accounts as to his dealings with the moneys of the various companies.

SAILORS AS ALIENS.

It would appear as if the immigration officers were overstepping their duties in stopping sailors from shipping at United States ports. The alien contract labor law is beneficial from every standpoint except where it interferes with sailors, as this class of help we must get at any and every point where needed. The immigration officers at the several lake ports should be told by their chief at Washington that sailors were outside the pale of their jurisdiction and that their meddling with the shipment of seamen was not only abnoxious but strictly illegal.

We have been trying to act the Chinese bill over again to the exclusion of actual talent until other nations are beginning to notice what we are doing and now the Britishers feel like legislating against American citizens sailing as officers or holding command under their flag and justly so, too.

The writer, an American, holds the Board of Trade certificate to sail anything under the English flag in the merchant service and this is a license to so command, on the simple grounds of competency, so also might an African obtain the same honor at any time up to date. Not so, however, with us, as the following abstract from the United States Revised Statutes clearly shows:

"All the officers of vessels of the United States who shall have charge of a watch, including pilots, shall in all cases be citizens of the United States. The word 'officers' shall include the chief engineer and each assistant engineer in charge of a watch on vessels propelled wholly or in part by steam; and after the first day of January, eighteeen hundred and ninety-seven, no person shall be qualified to hold a license as a commander or watch officer of a merchant vessels of the United States who is not a native-born citizen, or whose naturalization as a citizen shall not have been fully completed.

"All licenses issued to such officers shall be for a term of five years, but the holder of a license may have the same renewed for another five years at any time before its expiration; Provided, however, That any officer holding a license, and who is engaegd in a service which necessitates his continuous absence from the United States, may make application in writing for one renewal and transmit the same to the board of local inspectors with a statement of the applicant verified before a consul, or other officer, of the United States authorized to administer an oath, setting forth the reasons for not appearing in person; and upon receiving the same the board of local inspectors that originally issued such license shall renew the same for one additional term of such license, and shall notify the applicant of such renewal. And in all cases where the issue is the suspension or revocation of such licenses, whether before the local boards of inspection as provided for in section fourty-four hundred and fifty of the Revised Statutes, or before the supervising inspector as provided for in section fourty-four hundred and fifty-two of the Revised Statutes, or before the supervising inspector as provided for in section forty-four hundred and fifty-two of the Revised Statutes, the accused shall be allowed to appear by counsel and to testify in his own behalf.

No master, mate, pilot, or engineer of steam vessels licensed under title fifty-two of the Revised Statutes shall be liable to draft in time of war, except for the performance of duties such as required by his license; and, while performing such duties in the service of the United States, every such master, mate, pilot, or engineer shall be entitled to the highest rate of wages paid in the merchant marine of the United States for similar services; and, if killed or wounded while performing such duties under the United States, they, or their heirs, or their legal representatives, shall be entitled to all the privileges accorded to soldiers and sailors serving in the Army and Navy, under the pension laws of the United States.

"After the first day of January, eighteen hundred and ninety-seven, no person shall be qualified to hold a license as a commander or watch officer of a merchant vessel of the United States who is not a native-born citizen, or whose naturalization as a citizen shall not have been fully completed."

From the foregoing it is manifestly unfair, illogical and illegal for immigration officers to interfere with ships crews. The custom house employes can see that the master and officers are citizens and duly licensed to conduct a boat over the waters, but as regards the crew, made up as it must be from all nationalities, the immigration officer is at fault in endeavoring to interfere with this particular line of business.

Sailors are a nomadic class anyway, and it is simply paltry for this government to try to discriminate between nationalities, relative to the right of any A. B. to haul ropes or sweep decks. The immigration officers at Buffalo and Detroit are exceeding their duties and require to be called down on this special plea of interfering with sailors.

The Record asserts, without any cause of contradiction, that an American is, and will remain, an American, whether he resides in Havre or France, Canton or China. The matter of residence does not denationalize any citizen, per se. Sailors are citizens of the world and elegible to ship wherever they may be paid off or cast ashore.

It is worse than ridiculous for the immigration bureau to chase up sailors, relative to when, where and how they ship and in doing so the department shows clearly that it has nothing else to do and should therefore be reduced to its proper functions or perhaps wiped out entirely, leaving the customs officials to superintend and vouch for the reliability of emmigrants, versus sailors.

LAKE FREIGHT REPORTS.

There is only activity in the freight market at Chicago. All other points are dull. Buffalo and the St. Lawrence river route seems to control the lake trade this week and charters at 1¼ cents from Chicago to Lake Erie ports are in good demand, while both ore and coal are simply idle so far as chartering is concerned.

Of course the coal miners' strike is responsible for this slack business and this week the iron ore shipments seems to be in the hands of the monopolistic mine owners, who will ship or charter as they please, according to the state of the iron ore market. There is little or nothing doing, for the shipment and charters at almost any terms are hard to secure just now, but this phase of the business will no doubt change within a few days and with the settlement of the coal miners' strike, grain coming foward and iron ore to keep the furnaces going through the winter months we may look for an improved freight market in the very near future.

A FOREIGNER'S VIEW.

The growth of the American navy is admittedly slow, so says Transport, but it is, according to competent authorities, being conducted on right lines. The distinctive classes of vessels may be small in number, but they invite comparison with similar types of ships in the old world. Many authors have from time to time described its growth and development—both civilians and those belonging to the service. There is, however, a branch of the service that has been greatly neglected, and that is the engineering branch, but this defect in the literature of the country has recently been appropriately remedied in the steam navy of the United States by Mr. Frank M. Bennett, of the United States navy. Mr. Bennett is in the active list of the service, and is attached to the United States monitor Amphitrite. The work is of massive proportions, and contains over nine hundred pages. It is bound in navy blue vellum cloth and illustrated with over one hundred drawings of machinery, boilers and methods of propulsion; besides pictures of many of the earlier and more modern types of warships. Every statement in the book is based upon historical data as they appear in the records of the avy Department, at Washington, and the volume being the only work that has ever been written that treats of the inception and growth of the steam war vessel of the United States is of great value not only to the student of naval history but of American history as well.

Starting with the first steam war-vessel ever built in the navy, and which was also, it is noted, the first warship in the world, Mr. Bennett traces from that crude and clumsy beginning the slow development of the naval steamer into intricate and delicate pieces of mechanical ingenuity that form the war-vessel of to-day. Into this narrative is woven the history of the engineering corps of the navy, whose members have kept the standard of our ships fully up to that of other nations, and have made the new navy with its swift steel ships and perfected machinery an accomplished fact. Former naval histories have dealt almost entirely with the deeds of the fighting heroes who man the ships, and have had little to say about the vessels themselves, or the anchors, or the engineering force who not only design and build the vital parts of all modern warships, but who also do a not unimportant part of the fighting work. Popular fallacy has denied to the men of the engine-room much of the honor and glory that has been with unstinted generosity bestowed upon the heroes of the quarter deck. But it is an acknowledged fact that the engineer of a man-of-war is exposed to all and many more dangers than await the active participators in a conflict. Here, however, there is little room for poetic song or story, but it is indisputable that there are few naval engineers of any length of service who have not been called upon to face death in its most fearful form, and, although

being scalded to death like a rat in a hold, in an effort to save a ship, is not so picturesque as nailing a flag to a mast while under fire, and does not call forth popular applause, it certainly does produce a firmer and finer degree of courage, and from the military point of view it is of the highest importance.

The first steam man-of-war of the United States was the Fulton or Demologos, designed by Robert Fulton, and built under his supervision in New York in 1814. Owing to the difficulty of obtaining material and skilled labor, the steamer was not completed until after the war with Great Britain had closed, and the opportunity to test its fighting qualities against the British fleet was lost. The writer states that the subsequent performances of this peculiar craft under steam makes it certain that with her powerful battery and independence of wind and tide, she would have been entirely successful over the sailing frigates she was constructed to assail, her advantage being not unlike that possessed by a savage tireless wolf attacking a flock of sheep. Her earlier advent would, the writer thinks, have haved the loss of the President frigate, and thus deprived the enemy of one of the very few causes for rejoicing over naval victories that the events of that war afforded. Of much more importance would have been the incalculable impulse given to steam as a factor in naval warfare that would have followed the success of the Demologos in battle, and which would possibly have meant at a single bound an advance of half a century's naval development. The duel between the rudely-fashioned ironclads—Monitor and Merrimac—completely changed the naval architecture of the world, but no one could tell the extent of the absolute revolution not only in naval architecture but in the methods of naval warfare that would have resulted from the trial of Fulton's invention in actual war. Instead of being obliged to fight its way inch by inch and foot by foot, compelled to struggle against every obstacle and every objection which jealousy, conservatism, and ignorance could bring against its progress, slowly and painfully forcing an unwilling and qualified recognition from the very element that should have championed its cause, steam power would have appeared in the arena fully armed and equipped from the brain of its master, and would have been hailed, not only as an auxiliary, but as an all important arm in naval warfare. The dimensions of the vessel, as compared with the modern leviathans, was small, her length being 156 feet, her breadth 56 feet, depth 20 feet, and tonnage 2,475. Her engine cylinder was 48 inches in diameter, and 5 feet stroke. The length of the boiler was 22 feet, and breadth 12 feet. The total cost of the vessel was $320,000. Mr. Fulton died before the vessel was completed, and the construction committee in reporting to Congress said of him and his work: "His discoveries, however, survive and will extend for unborn generations." There being no need for the Fulton in active service she was taken to the Brooklyn navy yard, where she was used as a receiving ship until 1829, when she was blown up owing to a premature explosion of the saluting powder. Not only was the vessel entirely destroyed, but she caused the deaths of 24 persons, and injuries to 19. Such was the history of the first steam war vessel ever built. The next steamer dealt with is the Sea Gull, purchased in 1822 for $16,000 and used as a despatch boat in the West Indies. Not during the time she was in the navy or during Fulton's time were there any engineers added to the navy list of officers, the men from Robert Fulton's warship running the latter. It is to be presumed that the men running the engines of the Sea Gull were the same as those employed on her before her purchas by the Government. The Sea Gull went out of service and was laid up in 1825. In 1836 the Navy Department of the United States took up the work of building a steam war-vessel, and Charles H. Haswell was appointed chief engineer of the ship, and thus became the first person to hold the position of engineer in the United States navy. The hull was built at the Brooklyn navy yard, and the engines and boilers by the West Point Foundry Association of New York. This was the second Fulton, which was a longer and narrower vessel than the first, and her displacement was 1,200 tons. The cranks and shafts were made of cast-iron, and the contract price for the engines was $40,000. The boilers were built at the navy yard for 8½ cents a pound, the Government furnishing the material which consisted of the copper plates and rivet ends.

The question of supplying a force to work the engines was then taken up, and it was at this time that the regular engineer force of the navy was started. What became the departmental regulation on the subject read thus: "Upon the subject of appointments of the engineers, the Board suggested the expediency of allowing for the present the commandant to nominate the assistant engineers, after collecting and qualifications, subject to the confirmation of the commander of the station." This order was dated 1st October, 1837, and was followed by the appointment of various engineers and their assistants. On trial the second Fulton developed speed enough to make her usual speed of about 12 knots, and at forced pressure 15 knots. Owing to her construction she could not be used as a cruiser for sea purposes, being in fact planned and built for harbor defense, and the Fulton was in active service along the Atlantic coast until 1842, when she was laid up in the Brooklyn navy yard, and remained a useless hulk until 1851. In this year her machinery was replaced by a different type, designed under the direction of the engineer-in-chief, Mr. C. B. Stuart. The Fulton at this time had the reputation of being a very fast steamer.

The construction of two more war-ships was authorized by Congress in 1839, the frigates Mississippi and Missouri. The Mississippi engines were two in number, and were called side-levers, with cylinders 75 inches in diameter, and a 7-foot stroke. The Missouri had two inclined direct acting-engines, with cylinders 62½ inches in diameter. The hulls of both vessels were of wood, and the machinery was designed by Charles W. Copeland, principal engineer United States Navy. A remarkable fact in connection with these two vessels is that they cost nearly the same amount, although built in different cities by different contractors. The cost in both cases was just a trifle over half a million dollars. At this time there were twenty engineers in the service, and as the policy of build-steam war vessels became more general there was every prospect of additions to that number in the near future. The engineers were not satisfied with their positions in the service, their pay being smaller than that of similar positions in civil life, the tenure of office uncertain, and added to this came the appointment of a protege of a politician to an office for which he was altogether unqualified. These facts taken together led to a determination on the part of the men to lay the matter before Congress.

The movement was headed by Mr. Haswell, the senior and most prominent of the engineers. The result in the end was the adoption by Congress of an act regulating the appointment and pay of engineers in the navy. This increased the pay of the engineers and gave them a certain legal status and tenure of office, and it put them under the rules and regulations of the department, and discriminated against the corps, as that department has done to this day. After the act had been passed, Mr. G. L. Thompson, a prominent Washington politician, who had been instrumental in obtaining the passage of the measure, was, to the surprise of everybody, made chief engineer. He had no knowledge whatever of mechanics, and no practical experience. His career as engineer-in-chief was brief, but an amusing incident occurred in connection with it. He ordered the Missouri's smoke pipe, which was 7 feet in diameter, to be replaced by two pipes 3 feet 6 inches in diameter. Mr. Haswell, the engineer, protested, but the instruction was carried out, and in the presence of the members of the cabinet, who were invited to witness Mr. Thompson's triumph, a trial was made. The experiment was a dismal failure, and as a scapegoat had to be found Mr. Haswell was suspended from duty, as he had not used sufficiently inflammable material in lighting the fires. The following year, however, Mr. Haswell was appointed engineer-in-chief, and Mr. Thompson's name was dropped from the list.

The Missouri was burned at Gibraltar in 1843, but the Mississippi had a long and famous career, and was the flagship of Commodore Perry in the Mexican war and in the expedition to Japan. She also carried the famous Hungarian exile, Kossuth, from Turkey to France, and at the opening of the Civil war she was one of the first vessels to the front. Twice she circumnavigated the globe; but finally she was sunk in the river whose name she bore, her hull having been pierced by rebel guns. The Michigan, a paddle wheel boat still in active service on the Great Lakes, was designed in 1842, and the engines then planned and built are still doing good service. These were two inclined, direct-acting, condensing engines, placed side by side, the cylinders 36 inches in diameter and 8-feet stroke. Her hull is of iron, and the various parts were built at Pittsburg, Pennsylvania, and thence she was transported to the port of Erie, where she was put together and launched in 1845. Several attempts were made about this time to substitute something different for the ordinary side wheels, and three vessels were built—the Germ, Union, and Waterwitch, in which Lieutenant Hunter's invention of a wheel located on the side but below the water, so that the wheel revolved in the water entirely, was tested. None of the vessels acquired the speed expected of them, and a larger vessel, the Alleghany, was built on the plans of Lieutenant Hunter. She was equally unsuccessful, and in 1851 was rebuilt with an entirely new arrangement of her engines, and with a screw propeller. Again she proved a failure, and in reply to repeated demands on the part of the public, a board was appointed to investigate her condition. The effect of their report was that she was quite unsuited for naval purposes. She was laid up in ordinary until 1869, when she was sold for about $5,000. It was at this experimental period that the first armored ship of the navy was suggested to Congress by Robert L. Stevenson, the vessel being designed by the famous inventor John Stevens. She was an ironclad steam battery, protected by plates 4½ inches thick, which it was thought would withstand the fire of any possible gun. Unfortunately for Stevens it was shown by Ericsson that it could be penetrated, and the project languished until a later period, when work was begun. On the death of Mr. Stevens the work was brought to a standstill on this formidable craft, which had a resemblance to those monsters of the deep that are to be seen in the waters to-day. This vessel was 420 feet long, and with iron armour 6¾ inches thick. The machinery was equally powerful, having 8,600 horse-power—an engine power equal to that of the celebrated Great Eastern. The offer of Stevens' sons, to finish the vessel and present her to the United States was refused by the navy department, and the vessel was bequeathed to the State of New Jersey with $1,000,000 to finish it. In 1874, the million dollars was exhausted, and the vessel was no nearer finished than before, and as the United States Government refused to take her, she was broken up and sold for old iron. She appeared in the official list of the navy for several years, but she was always known as Stevens' battery. Following the arrival of Ericsson in the States came the introduction of the screw propeller. It first appeared in the Princeton, the earliest screw steam war-vessel. Her engines were all placed below the water line and she was the first war vessel with boilers designed to burn anthracite coal. Many advantageous changes from the prevailing ideas were made in her engines. She was completed in 1844. In her trials she was successful, and after service in various parts of the world, she was broken up about the middle of this century.

It cannot be said that steam played an important part in naval opperations during the Mexican War, although its superiority over sails was clearly demonstarted by the Susquehanna and Powhatan, two large steamers 250 feet long, and two smaller ones, the Saranac and Jacinto, about 200 feet in length. When Congress in 1854 passed an Act authorizing the construction of half-a-dozen first-class steam frigates, these were built at the Government Navy yards. They were known as the Merrimac, Wabash, Minnessota, Roanoke, Norfolk and Niagara. They were full-riged ships, and when completed they were exceptionally fast sailers. During the Civil War, the engineers' corps did most valuable service to the United States, and made the four years' blockade possible. This was a trying situation to them, as upon the engineers fell the responsibility of keeping the ships repaired and ready to move at a moment's notice, for otherwise they were worthless. At the beginning of the war there were 192 engineers in the service, and 22 of these resigned and joined the Confederates. After the increase of ships, this number had grown at the end of the year 1861 to 404 in the regular service, and 364 acting engineers. These men were distributed among the numerous merchant ships that the Government bought and pressed into the service, and among the large number of vessels built in the government yards. At the outbreak of the war an attempt was made by Chief Engineer Iserwood to save the Merrimac, which was at the Norfolk Yard, but the scheme failed owing to the action of the Commandant, who ordered the fires to be extinguished after the engineers had spent three days in getting the engines ready. The first ironclads—the Galena, New Ironsides, and Monitor, were built during the first year of the war. and all saw considerable service. The Monitor was built according to the ideas of Erricsson, and was a famous—in fact, an epoch-making craft. Her encounter with the Merrimac is said to have had an important influence on the termination of the war, and the result of that historic engagement completely changed the principles of naval architecture. Ericsson, who had previously been the victim of abuse and ridicule, now became a popular hero. Ironclads were introduced on the Mississippi, and did much to make the success of the Unionist possible there.

During the later years of the war the navy was increased by large purchases and by construction of vessels by the Government. These were all steam war vessels and additional ironclads were provided. Half a dozen of them were provided by Ericsson, and they were named the Passaic, Montauk, Catskill, Patapsco, Lehigh and Sangamon. By the close of the war the navy had been further augmented by some sixty iron steamers, while the wooden vessels had been increased by over one hundred. Some few of these vessels still remain in active service at the present tim. From that time till now the development has been constant, the changes in the mechanical part of the vessels having been specially important. With a school for the training of naval engineers, at Annapolis, the navy has been able to keep pace with the discoveries in recent years in marine architecture throughout the world.

IMPROVEMENTS AT CHICAGO.

Major W. L. Marshall, Corps of Engineers, who during the past year has been in charge of river and harbor improvements in Illinois, has submitted his annual report to the War Department.

No work was done in improving Chicago harbor during the year. The harbor is in excellent condition, with the easterly and southerly breakwaters. The Chicago River was improved by dredging, the following amount of material being removed: Main river and south branch, 258,966 cubic yards; north branch, 248,610 yards. The river can now accommodate vessels of sixteen feet draft only. The tunnels absolutely limit the draft of vessels, the bridge draws, docks, and bends absolutely limit the length and beam. The amount expended during the year was $24,475, leaving an available balance of $19,826. Work on Calumet Harbor, Ill., was applied to the extension of the south pier and to dredging the channel between the piers and in Lake Michigan. Two hundred and twenty-three thousand and six cubic yards of material were removed from the channel, and the pier extended 800 linear feet. Work is now in progress in rebuilding the sunperstructure over 500 feet of the north pier near its outer extremity. The improvements in connection with the approaching completion of the 20-foot channel, says the report, has provided Chicago with the finest harbor on Lake Michigan, capable of receiving the largest vessels on the lakes as long as the bar at the mouth of the river can be kept dredged. The arrivals and departures of steam vessels at South Chicago during the year were 1,454, registered tonnage 2,116,482 tons. The amount expended during the year was $58,242; available balance, $15,457.

H. C. BURRELL,

Marine Reporter.

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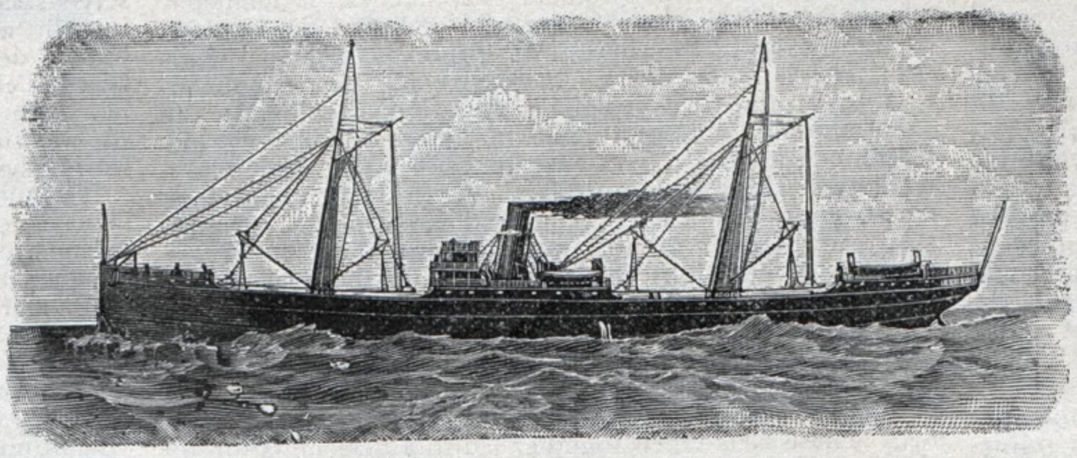

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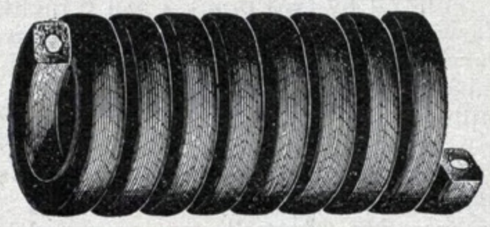

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☞ We do not hold ourselves responsible in any way for the views or opinions expressed by our correspondents. It is our desire that all sides of any question affecting the interests or welfare of the lake marine should be fairly represented in THE MARINE RECORD.

"HE SHOT THE BIRD."

Sombra, Ont., July 13, 1897.

Editor the Marine Record.

I noticed an account in the Record some time since of a captain shooting a carrier pigeon while going down Lake Erie. I must say that the poor bird was out of humanity's reach. If that master had been sailing one of the late Mr. Winslow's boats he would have been told to bring the vessel's books to the office and that as you well know is tantamount to dismissal from the employ.

The Winslow fleet was named mostly after birds, as for instance: the Plover, Oriole, Swan, Albatross, Skylark, Red Bird, Robin, Nightingale, Mocking Bird and Goldfinch. A handsome brig named the Audubon, foundered with a cargo of railroad iron near where the Pewabic went down.

Mr. Winslow had large bird cages put at their family vault in Erie Cemetery and filled them with birds, his father, mother and brothers were buried there and feed for even the wild birds used to be scattered around daily and I often went there to see the little feathery tribe.

On a passage across the Atlantic I believe that we had the same birds follow us from the coast of Ireland to the Gulf of St. Lawrence, nor did we omit feeding them from time to time. In the early days on the lakes the beautiful little songsters would lose their way whenever a light fog sprang up and they would rest on the vessels by scores or I might say, hundreds and I always fed them taking care that they should receive no hurt until the weather cleared up when off they would wing their way again.

Well! that is years and years ago, the big boats up to 6,000 tons are doing the work now and the flotilla of sail craft in which we used to take so much pride are all wiped out, as well as most of the men who used to handle them. My side-lights are burning low and there is no oil to trim them with so I have to sail under close canvas to keep out of trouble. I could stand it better though if my aged consort was in ship-shape order and good condition, but she seems now almost ready to cast herself away on a lee shore; we must hope though for a Yankee slant to plug us to windward so that we can weather it out for awhile longer anyway. Remember me kindly to old friends. CAPT. CHARLES GALE.

(The writer of the foregoing is now probably the oldest lake sailor living, and while almost a nonagenarian is tolerably robust and hearty save for an approaching dimness of vision to which he alludes in stating that he has no oil to trim his side-light with.—Ed.)

AS TO SCHOOLS OF NAVIGATION.

The lake captain appearing in print in the Detroit Free Press respecting the school of navigation in Chicgao, had better not given publicity to his own ignorance in matters pertaining to navigation.

The standard he puts up for navigating the lakes among other things, calls for "an intimate knowledge of the various courses necessary to clear all lake shore dangers, and at the same time not cost the vessel loss of time by running her too far out." He evidently makes it a point to always cling to the shore, and thus by constantly courting danger imperils the vessel, in order to lose no time. The loss of time to any appreciable extent by running a safe course, instead of a perilous one, exists only in the imagination of fools, as will be seen presently.

In a triangle the three sides of which are 20, 10½ and 10½ inches, the height of the triangle for the base 20 is 3.3 miles; and the sum of the other two sides is 21 miles. Now, if the base represents the shortest route between any two places, passing close to an obstacle about midway, and the other two sides around about way, there is only a difference of one mile in the distances of the two routes, which enables the vessel to pass the obstacle at a distance 3.3 miles greater than by taking a close shave. The rate of the vessel being 10 miles per hour, 2 hours' run are required on a most perilous course, and 2 hours 6 minutes on a safe course; and the difference in time is but 6 minutes. The greater the distance between any two places, the less is the difference in time on a circuitous course varying 3.3 miles from a direct course.

Therefore, not running too far out on the lake, is practically saving little at the risk of wasting much, in other words, great foolishness.

Furthermore, "an intimate knowledge of the various courses necessary to clear all lake shore dangers" suggests running the vessel along the shore from one obstacle to another with a close shave, a feat solely performed by ignoramuses and madmen. If chart courses are meant, their knowledge is entirely superfluous, as they can be taken at any time from the charts when wanted. Such knowledge does not enable any body to safely run a vessel, being accomplished only by a knowledge of the corrections for variation, deviation, leeway and current. Courses are not run by chart, but must be run by compass after having applied the corrections mentioned to the chart course. As the correction for leeway and current is ascertainable only during the voyage; it follows, that the course to be steered by compass is not known beforehand to anybody. Chart courses serve only to find by means of the corrections mentioned the corresponding compass courses to be steered. The principal thing therefore is, to know or find the amount of the several corrections; and it is this task in which almost all lake navigators fail.

There is not one vessel on all the lakes having facilities for measuring the correction for leeway and current, and in the majority of cases, it is hardly known that such a correction of courses is necessary. It is therefore impossible for anybody to acquire such knowledge on the

lakes; neither can it be acquired in shipyards; on the levees, in lumber and coal yards. Every particle of knowledge in this line has to be looked for in Hydrographic Offices and nautical schools.

The conversion of true courses into compass courses, and vice versa, is the stumbling block of many a navigator.

In view of all these facts the examination of pilots "whether he can shape courses here and there on the different lakes," is a mere farce; and schools for acquiring the rudiments of navigation must be considered a great blessing.

Finally the prompter of the Free Press oracles: "Once in a great while you will hear the excuse given by the man on watch for stranding his vessel in a fog, that he thought he was further out in the lake, or several miles back or ahead of the point at which he went on. This is no excuse at all. He should have his log and knowing the speed of the boat, he would be able to tell his position when he entered the fog. As to his ignorance that he was so close to shore—he would have been enlightened fully had he not criminally neglected the heaving of the lead. No, it makes no difference whether or no a defective compass sent him ashore. It is his duty, in a fog, to go at a very slow speed, and to keep that lead going. This will always prevent stranding."

This whole passage is full of contradictions. A defective compass, or a compass the errors of which are not known, is of no use at all for finding the course made good, far less the position of a vessel when entering a fog. The speed of the boat being influenced by currents, the distance run cannot be depended upon; and without a reliable line of position the lead is of no use whatever for finding the place the ship is in. It is therefore foolishness to talk about preventing stranding by keeping the lead going, when the position of a vessel is not even approximately known. On a slanting bottom the lead is a powerful preventive of stranding in combination with safety curves, but on a level bottom it is entirely powerless, because of soundings being all alike. The lead, therefore is only of limited use; and keeping it going will not always prevent stranding, although the understrapper of the Detroit Free Press fancies, it will.

To dispel all the old notions on the great lakes, nautical schools are a necessity.

The science of navigation, as a branch of mathematics, is independent of all practical experience on the lakes, or anywhere else, which experience avails nothing in the practical solution of the problems pertaining to compass and log, dealing with directions and distances referred to different compass—meridians and different planes of action.

JOHN MAURICE.

Chicago, July 14, 1897.

VISIBLE SUPPLY OF GRAIN

As compiled for The Marine Record by George F. Stone, Secret ry Chicago Board of Trade.

Cities Where Stored.	Wheat. Bushels.	Corn. Bushels.	Oats. Bushels.	Rye. Bushels	Barley. Bushels.
Albany	.....	25,000	50,000	.....	.....
Baltimore	599 000	698,000	148,000	18,000	.....
Boston	138,000	1,090,000	175 000	.....	4,000
Buffalo	595,000	663,000	519,000	186,000	264,000
" afloat	.....	.....	.....	.....	.....
Chicago	3,635,000	7,750,000	1,601 000	194,000	9,000
" afloat	.....	.....	.....	.....	.....
Cincinnati	1.000	4,000	4,000	.....	1,000
Detroit	8,000	24,000	4,000	13,000	8,000
" afloat	.....	.....	.....	.....	.....
Duluth and Superior	805,000	10,000	366,000	355,000	214,000
" afloat	.....	.....	.....	.....	.....
Indianapolis	32.000	79,000	3,000	.....	.....
Kansas City	81,000	171,000	120,000	8,000	.....
Milwaukee	109,000	3,000	1,000	136 000	68,000
" afloat	.....	.....	.....	.....	.....
Minneapolis	7,572.000	74,000	80 000	15,000	12,000
Montreal	167.000	35 000	452 000	42,000	33,000
New York	591.000	1,325.000	1,722 000	445,000	108,000
" afloat	23,000	9,000	40,000	9,000	.....
Oswego	.....	93.000	43,000	.....	.....
Peoria	.....	7,000	20 000	.....	.....
Philadelphia	111,000	491,000	142,000	.....	.....
St. Louis	62,000	250,000	11.000	1,000	.....
" afloat	.....	.....	.....	.....	.....
Toledo	195,000	3.1,000	24 000	69,000	.....
" afloat	.....	.....	.....	.....	.....
Toronto	81,000	.....	34,000	.....	6,000
On Canal	75,000	447,000	.....	267,000	119,000
On Lakes	444,000	1.839.000	1,418,000	290,000	162,000
On Mississippi	.....	42,000	26 000	.....	.....
Grand Total	15,324,000	15,139,000	7,003,000	2,048,000	1,008,000
Corresponding Date 1896	46.743 000	8,666,000	7 107,000	1 656,000	748,000

The Sheboygan Telegram announces that Oswald A. Stevens, of that city, a traveling agent in the employ of the Wisconsin Chair Co., of Port Washington, is fitting out the schooner Myrtle Camp and expects to sail within four weeks for the Sandwich islands to engage for five years at least in trading between Honolulu and the small islands. D. C. Phillips, of Ypsilanti, Mich., a former owner of the schooner, will go with Mr. Stevens, and he is now engaged in putting the craft in condition. Mr. Stevens was formerly engaged in a similar enterprise, and recently re-entering the business. The Myrtle

The little schooner Schlitz Globe, in which Adolph Fritsche was to sail around the world, cleared from Chicago for Racine this week. The Globe has been at the entrance to the canal ever since last November. Her cargo of beer, on which the natives of strange climes were to be regaled, has disappeared among the denizens of Bridgeport, and now the whole trip is abandoned. Fritsche sailed the little Nina across the Atlantic, but for some cause weakened when it came to taking the Globe around the world.

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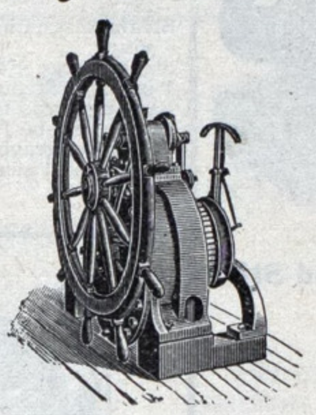

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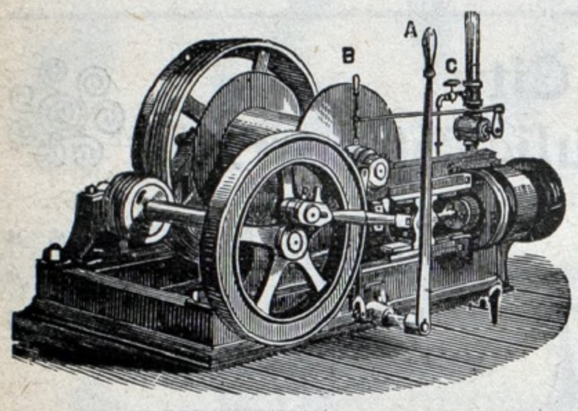

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Steamer H. W. Williams, South Haven, 18 and 36x30
Steam Barge Mark B. Covell, Manistee, 18 and 30x26
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Steam Barge Sachem, Grand Haven, 21 and 38x36
Passenger Steamer Bon Ami, Saugatuck, 14 and 28x20.
Steam Barge Charles A. Street, Chicago, 20 and 36x36.
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Passenger and Freight Steamer Bon Voyage, Saugatuck, 16 and 30x26.
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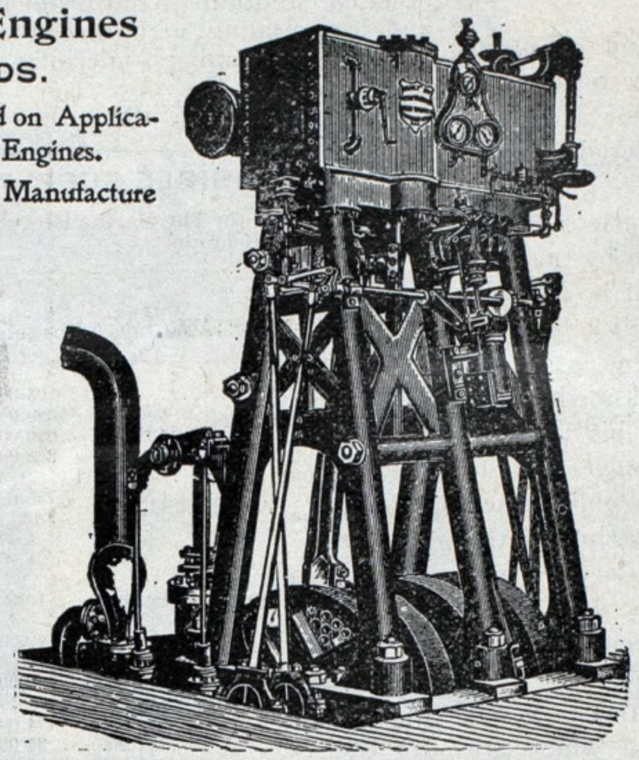

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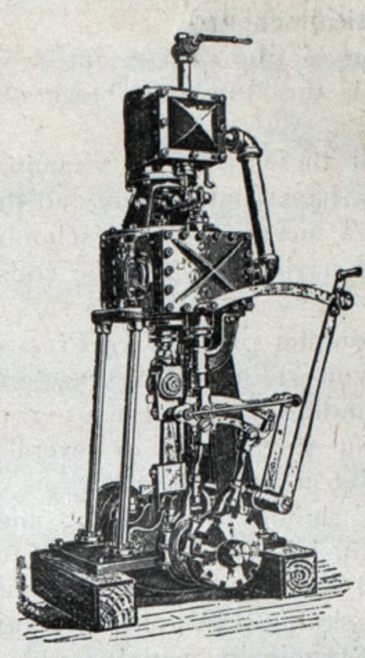

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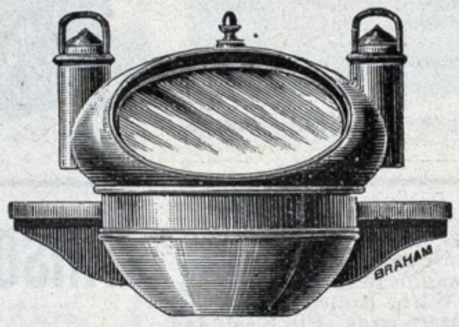

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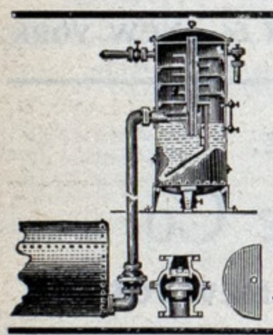

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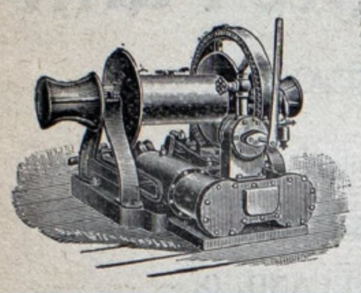

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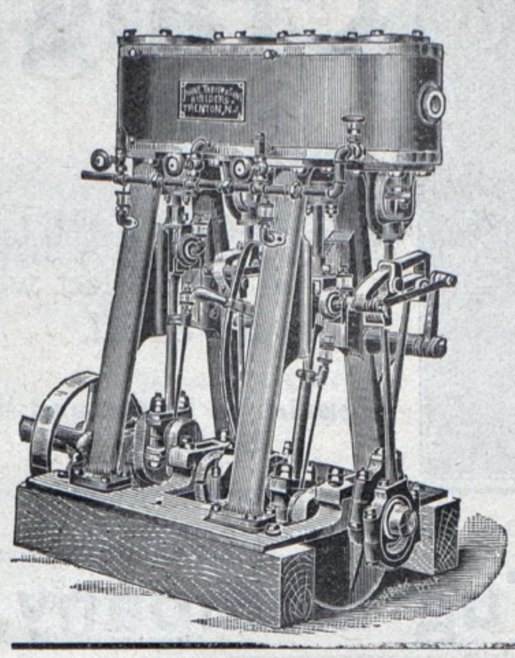

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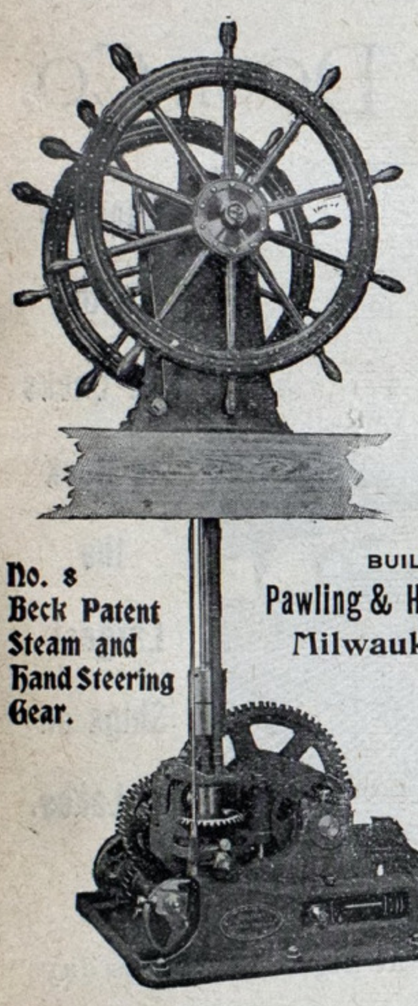

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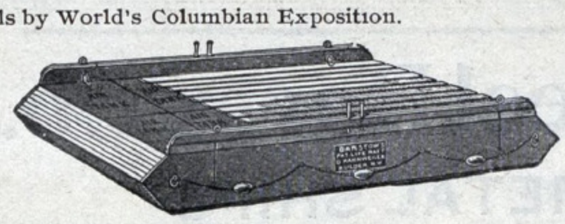

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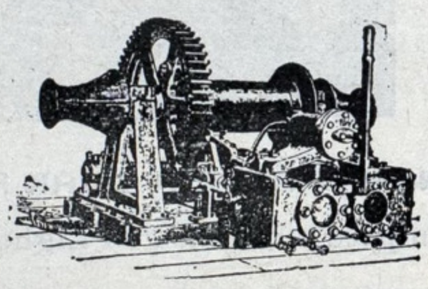

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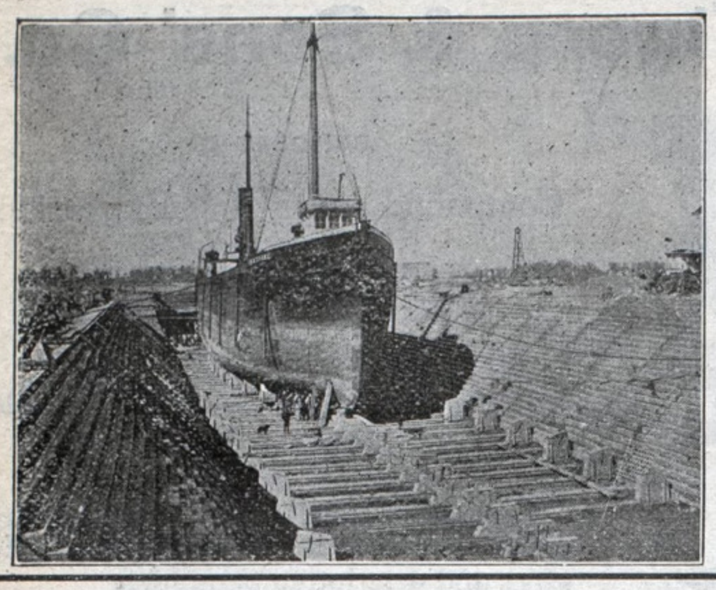

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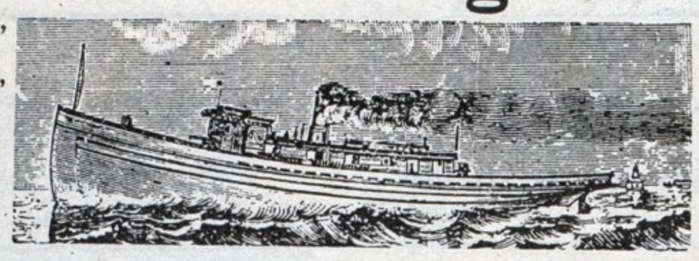

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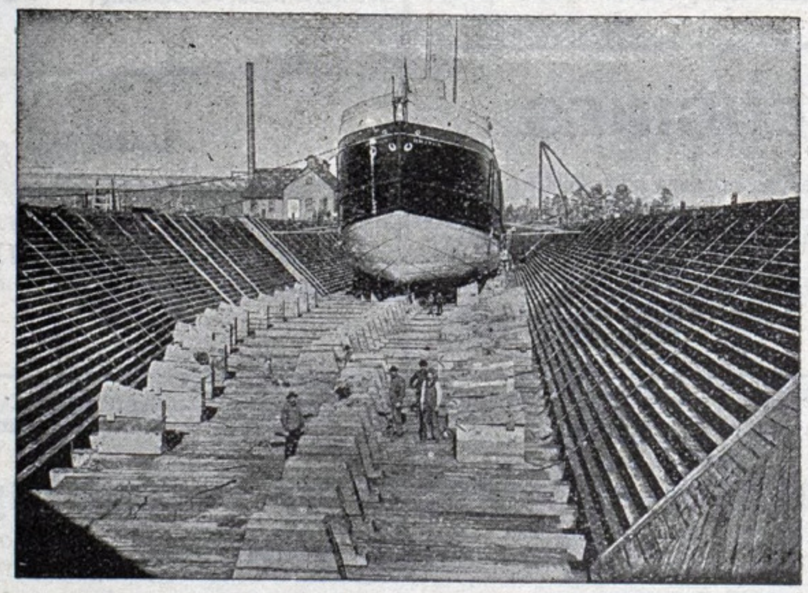

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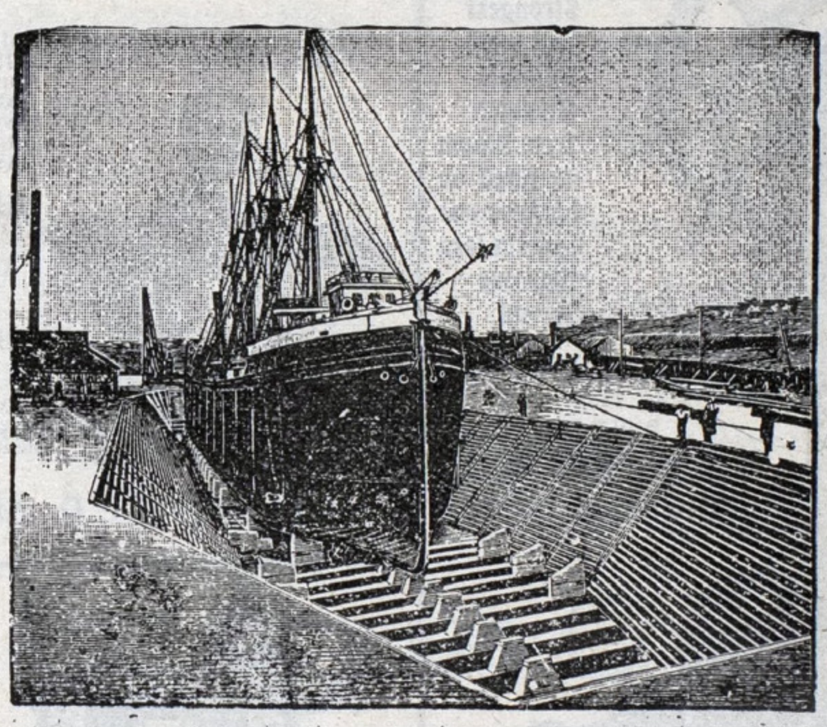

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